

IN THE CLAIMS:

Claims 7, 14 and 21 have been amended herein. Claims 23 and 24 have been canceled. New claims 25 through 29 have been added. Please note that all claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-6 (Canceled)

7. (Currently amended) A rocket motor, comprising:
an insulation material disposed between an inner surface of a case of a rocket motor and a propellant, the insulation material ~~comprising~~ consisting of a low-density ethylene propylene diene monomer polymer, at least one flame retardant, sulfur, an organic filler selected from the group consisting of polyvinyl chloride, melamine, and a homopolymer of vinylidene chloride, and at least one additive selected from the group consisting of at least one antioxidant, at least one cure accelerator, at least one cure activator, at least one tackifier, and at least one plasticizer.

Claims 8-13 (Canceled)

14. (Currently amended) A method of insulating a rocket motor comprising:
producing an insulation material ~~comprising~~ consisting of a low-density ethylene propylene diene monomer polymer, at least one flame retardant, sulfur, an organic filler selected from the group consisting of polyvinyl chloride, melamine, and a homopolymer of vinylidene chloride, and at least one additive selected from the group consisting of at least one antioxidant, at least one cure accelerator, at least one cure activator, at least one tackifier, and at least one plasticizer; and
applying the insulation material to an inner surface of a case of a rocket motor.

Claims 15-19 (Canceled)

20. (Original) The method of claim 14, further comprising:
curing the insulation material to form an insulation layer positioned between the inner surface of the case of the rocket motor and a propellant.

21. (Withdrawn-currently amended) An insulation material for use in a rocket motor, ~~comprising~~consisting of:
a low-density ethylene propylene diene monomer polymer;
at least one flame retardant;
an organic filler selected from the group consisting of polyvinyl chloride, melamine, and a homopolymer of vinylidene chloride;
sulfur; and
at least one additive selected from the group consisting of at least one antioxidant, at least one cure accelerator, at least one cure activator, at least one tackifier, and at least one plasticizer.

22. (Withdrawn) The insulation material of claim 21, further comprising carbon black.

Claims 23-24 (Canceled)

25. (New) A rocket motor, comprising:
an insulation material disposed between an inner surface of a case of a rocket motor and a propellant, the insulation material comprising a low-density ethylene propylene diene monomer polymer, at least one flame retardant, sulfur, polyvinyl chloride fibers having a density of 1.38 g/cc, and at least one additive selected from the group consisting of at least one antioxidant, at least one cure accelerator, at least one cure activator, at least one tackifier, and at least one plasticizer.
26. (New) The rocket motor of claim 25, wherein the polyvinyl chloride fibers are present in the insulative material in an amount of about 13.5% by weight.
27. (New) The rocket motor of claim 25, wherein the polyvinyl chloride fibers have a length of about 60 mm.
28. (New) The rocket motor of claim 25, wherein the polyvinyl chloride fibers are dispersed randomly in the insulation material.
29. (New) The rocket motor of claim 25, further comprising carbon fibers.